

Appl. No. : **10/621,196**
Filed : **July 15, 2003**

REMARKS

The foregoing amendments are responsive to the November 14, 2006 Office Action. Applicant respectfully request reconsideration of the present application in view of the foregoing amendments and the following remarks.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Interview

Applicant thanks the Examiner for the office interview conducted March 1, 2007.

Amendments to the Specification

The specification has been amended to correct informalities and typographical errors identified by the Examiner. These amendments add no new matter.

Cancelled Claims

Claims 1-38, 44, and 48-66 have been canceled in order to expedite allowance of Claim 39 and its dependents.

Response to Rejection of Claim 47

The Examiner rejected Claim as lacking antecedent basis for the recited temperature sensors and magnetic sensors. Applicant has amended Claim 47 to correct the antecedent basis of the recited temperature sensors and magnetic sensors.

Response to Rejection of Claims 40 and 41 Under 35 U.S.C., first paragraph

The Examiner rejected Claims 40 and 41 under 35 U.S.C., first paragraph as failing to comply with the written description requirement. Applicant has amended Claims 40 and 41 to recite piezoelectric rings.

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Response to Rejection of Claim 1-20 and 31-50 Under 35 U.S.C. 112, second paragraph

The Examiner rejected Claims 1-20 and 31-50 under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner objected to the term "catheter-like" used in the claims. Claims 1-20 and 31-38 have been canceled. Applicant has amended Claim 39 to recite an elongate surgical tool.

Response to Rejection of Claims 39, 42, 44, 45 and 50 Under 35 U.S.C. 102(b)

The Examiner rejected Claim 39 under 35 U.S.C. 102(b) as being anticipated by Blume et al. (U.S. 6,014,580). With regard to Claim 48, the Examiner indicated that the prior art does not teach or suggest providing tactile feedback according to a position error between a present position of the distal and a desired position (paragraph 102).

Regarding Claim 39, the cited prior art does not render obvious a controllable magnetic field source having a first cluster of electromagnet poles and a second cluster of electromagnet poles, the first cluster of poles substantially opposed to the second cluster of poles, a tool having a distal end responsive to the magnetic field, one or more sensors configured to sense a current position of the distal end; a system controller for controlling the magnetic field source to control a movement of the distal end according to a feedback calculation wherein the system controller is configured to compute a position error comprising a difference between a desired position of the distal end and the current position of the distal end; and a Virtual Tip that provides tactile feedback to an operator, wherein an amount of tactile feedback is computed by the system controller at least in part according to the position error.

Regarding Claim 42, the prior art does not render obvious the apparatus of Claim 39, where the apparatus further includes an operator interface unit.

Regarding Claim 45, the prior art does not render obvious the apparatus of Claim 39 with a Virtual Tip Calibration Fixture.

Applicant asserts that Claims 39, 42, and 45 are allowable over the prior art, and Applicant requests allowance of Claims 39, 42, and 45.

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Response to Rejection of Claims 40 and 41 Under 35 U.S.C. 103(a)

The Examiner rejected Claims 40 and 41 under 35 U.S.C. 103(a) as being unpatentable over Blume et al. (US 6,014,580) in view of Blume et al. (US 2001/0021805) and Solf et al. (US 6,587,709).

Regarding Claim 40, the prior art does not render obvious the apparatus of Claim 39, where the said distal end includes one or more piezoelectric rings.

Regarding Claim 41, the prior art does not render obvious the apparatus of Claim 39, where the distal end includes one or more piezoelectric rings for providing sensor data to a system controller.

Applicant asserts that Claims 40 and 41 are allowable over the prior art, and Applicant requests allowance of Claims 40 and 41.

Response to Rejection of Claim 43 Under 35 U.S.C. 103(a)

The Examiner rejected Claim 43 under 35 U.S.C. 103(a) as being unpatentable over Blume et al. (US 6,014,580) in view of Hastings et al. (US 6,148,823).

Regarding Claim 43, the prior art does not render obvious the apparatus of Claim 39, wherein the first cluster of poles is connected to the second cluster of poles by a magnetic material.

Applicant asserts that Claim 43 is allowable over the prior art, and Applicant requests allowance of Claim 43.

Response to Rejection of Claim 46 Under 35 U.S.C. 103(a)

The Examiner rejected Claim 46 under 35 U.S.C. 103(a) as being unpatentable over Blume et al. (US 6,014,580) and further in view of Haynor et al. (US 6,129,668) and Tanabe et al. (US 5,550,580).

Regarding Claim 46, the prior art does not render obvious the apparatus of Claim 39, further including a communication controller, a calibration fixture, and one or more temperature sensors.

Applicant asserts that Claim 46 is allowable over the prior art, and Applicant requests allowance of Claim 46.

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Response to Rejection of Claim 47 Under 35 U.S.C. 103(a)

The Examiner rejected Claim 47 under 35 U.S.C. 103(a) as being unpatentable over Blume et al. (US 6,014,580) as modified by Solf et al. (US 6,587,709), and further in view of Haynor et al. (US 6,129,668) and Tanabe et al. (US 5,550,469).

Regarding Claim 47, the prior art does not render obvious the apparatus of Claim 39 wherein said one or more sensors comprise one or more temperature sensors paired with one or more magnetic sensors.

Applicant asserts that Claim 47 is allowable over the prior art, and Applicant requests allowance of Claim 47.

Summary

Applicant respectfully asserts that Claims 39-43 and 45-47 are in condition for allowance, and Applicant request allowance of Claims 39-43 and 45-47. If there are any remaining issues that can be resolved by a telephone conference, the Examiner is invited to call the undersigned attorney at (949) 721-6305 or at the number listed below.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: March 8, 2007

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